

COUNTRY PAPER ON
2008 POPULATION AND HOUSING CENSUS
OF PAKISTAN

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A) INTRODUCTION

Population Census Organization, an attached department of Statistics Division, is responsible to organize and conduct the decennial Population and Housing Census in the country and release of its data in the form of census reports at national, provincial and district level. The regular census reports are followed by a number of supplementary reports based on analysis of socio-economic and demographic data collected through the census.

B) IMPORTANCE OF CENSUS DATA

The importance and usefulness of census data can hardly be over emphasized. A decennial census is a stock taking of the human resources of a country. A modern census has ceased to be a mere head count. Besides identifying people in places and ascertaining their personal characteristics pertaining to age, sex, marital status, etc., their education and economic characteristics are also recorded, and the census data is not restricted to age, sex, etc., but covers migration and fertility characteristics. With such a large scope of enquiries the census data has diverse application and uses. These can be broadly categorized as follows:

- Political
- Administrative
- Budgetary
- Economic Planning
- Education and manpower planning
- Population policy
- Public health
- Demographic studies
- Market studies
- Miscellaneous

The need for authentic and reliable data by the government which has a federal parliamentary system has assumed added significance for the following reasons:-

- a) The Federal Government collects most of the federal revenues and taxes like customs duties, general sales tax and income tax. Most of these are distributed among the federating provinces on the basis of their population.
- b) While the total number of seats in the parliament (National Assembly) is fixed, the distribution of seats among the provinces is based on their respective populations.
- c) Allocation of vacancies for the provinces in the Federal government services is again determined on the basis of population of each province.

The provincial government needs population data for drawing or redrawing the boundaries of local government units. It also needs population data for categorizing certain localities into town committees, municipal committees or corporations.

Undoubtedly, one of the most important uses of population statistics is for planning long-term economic development. The government of any developing country has a major role to play in fostering development. In planning for all sectors it is important to know the geographical distribution of population so that these facilities cater to the needs of as many people as possible. Similarly, the density of population has an important bearing on planning for water supply, housing and other municipal amenities. Population figures are all the more useful for town planning. These figures alongwith their characteristics are necessary for gauging the problems of urban development, i.e. people living in *Kutchi Abadis*, the problem of slum clearance, the need for new housing, etc.

The population data also provides the base for calculating the size of the labour force. Only with authentic figures of people working in different occupations and industries it is possible to identify sectors of surplus and deficient manpower and initiate programmes of training in those sectors. The census data also indicates the level of unemployment in the

country. Measuring unemployment in rural areas of developing countries has many conceptual problems. This is why levels of unemployment are worked out separately for rural and urban sectors.

Population statistics are also essential for public health. It is difficult to measure the incidence of different diseases without knowing the population of the country and its component areas.

Thus holding of the National Census is a very sensitive and critical issue and all the provinces demand that the census should be conducted in fair, transparent manners. While the federal government is the major stakeholder as well as the data user of census information, lately private sector and provincial & local governments are increasingly utilizing census data & census maps.

C) STRUCTURE AND PERFORMANCE

Population Census Organization is an attached department of Statistics Division. It enjoys fair amount of autonomy especially during time of the decennial census. In the last few years Population Census Organization has established its credibility as a dynamic, vibrant and professionally competent organization. Because of its professional expertise and experience during the intercensal period it has been able to carry out the following additional tasks:-

- 1) Census of Afghans living in Pakistan was carried out by the PCO in February, 2005 under the aegis of UNHCR and Ministry of SAFRON. Both the government of Pakistan as well as UNHCR acknowledge the facts that this was the first authentic and reliable account of Afghans living in Pakistan.
- 2) Recently the PCO successfully carried out the survey for the Child Support Program of Pakistan Bait-ul-Mal in 10 districts of the country. Though the lists of beneficiaries supplied were incomplete and in some cases jumbled up, the results achieved by the PCO were commendable and even beyond the expectations of the PBM.

- 3) UNDP and Earthquake Rehabilitation and Reconstruction Authority after considerable deliberation have entrusted the survey of earthquake affected areas in 8 districts of NWFP and AJK to this Organization. Pre-test survey of this has already been conducted in two districts in Mansehra & Muzaffarabad.

To strengthen collection of statistics in the country there has been a move to re-structure the Statistics Division and merge the three attached departments of the Statistics Division i.e. Federal Bureau of Statistics, Population Census Organization & Agriculture Census Organization into one Statistical Authority the Pakistan Bureau of Statistics. Rationale of this move is to avoid duplication, to bring about synergies and improve the institutional capacity of the Statistical Authority. Since PCO is now involved for the planning of next Population & Housing Census in 2008, as far as PCO is concerned the merger of PCO into the Statistical Authority would take place after completion of 2008 Census.

D) HISTORY OF CENSUS IN PAKISTAN

Since creation of Pakistan in 1947, five censuses have been conducted so far. The first census was conducted in 1951, the second in 1961 while the third census was held in 1972 instead of 1971 due to political environment in the country and war in the area. The fourth census was held in 1981 and the fifth / last one which was due in 1991 was postponed a number of times and finally held in 1998.

The 1998 Population and Housing Census of Pakistan was conducted through door to door enumeration from 2nd to 18th March, 1998. The structure numbering and house listing (inventory of housing units) was carried out from 2nd to 4th March, 1998 followed by head count and housing census from 5th to 17th March, 1998 (5th March being the reference date). The non-contact, homeless, etc. population was covered on the last day i.e. 18th March, 1998.

D) EXPERIENCE OF PREVIOUS POPULATION & HOUSING CENSUS – 1998 OF PAKISTAN

The 1998 Population and Housing Census was initially planned to be undertaken in March, 1991 but could not be held as scheduled mainly due to apprehension about lack of consensus among the provinces on dates, methodology, etc. The apprehension arose out of the linkage of census figures with political and economic rights of the provinces as laid down in the Constitution of Pakistan.

Staffs of other government departments like Federal Bureau of Statistics, Registration Organization, local administration and Judiciary were engaged to supervise/oversee the field operation. Monitoring Cells were created at the provincial and district level by the respective provincial governments for this purpose.

After conducting the 1998 Census, Population Census Organization published its regular census reports at national, provincial and district level (125) within three years of the census. Census reports contain macro and micro level data which are used by national and international agencies, government and private institutions and general public for socio-economic planning, their evaluations and various administrative purposes.

Regular census reports consist of five parts viz :

- (i) Write-up which carries General Description of the area
- (ii) Broad analysis of population data
- (iii) Broad analysis of housing data, Part-IV comprises statistical tables while Part-V provides additional information about Part-I to IV in the form of annexures.

Apart from the above regular census reports a number of supplementary reports have been published to meet the specific requirement of data users. Some important reports published so far include:

- Main findings of 1998 Population and Housing Census. A brief and consolidated report on important population and housing characteristics.

- Hand books showing 1998 Census data in condensed form i.e. rates, ratios, percentages etc. at national and provincial level.
- District brochures containing basic population and housing data at Tehsil/Taluka level to have a quick view of these areas.
- Adjusted population from 1951 to 1998 Censuses by administrative unit (district/tehsil by rural/urban area and individual urban localities).
- Reports of big cities with Population 300,000 and above.
- District wise reports showing basic Population and Housing data by Union Councils for planning at micro level.
- Subject wise reports on important population characteristics like Literacy and Education, Migration, Labour Force, etc.
- Census Atlases at national and provincial level

E) AVAILABILITY OF RESOURCES FOR POPULATION & HOUSING CENSUS IN PAKISTAN

Population and Housing Census in Pakistan is invariably conducted by the government for a number of reasons. Firstly, it is an undertaking requiring vast organization and expenditure with no such immediate profit as is looked for by the private sector. It is a 'public good' for which necessary resources can be provided only by a government. Secondly, it requires adequate legal authority and administrative support at the provincial and local levels which can be accorded to only an official activity.

However, the UNFPA provided some financial help with the basic objective to re-inforce & strengthens the capacity of Population and Housing census in producing high

quality data on population and their housing conditions which are essential for socio-economic development planning of Pakistan. The assistance related mainly to the following components:-

	<u>US \$</u>
(i) Printing of OMR forms.	11,00,000
(ii) Equipment Support	1,83,000
(iii) Study Visit	45,000
(iv) Consultancy Services	40,000
(v) Publicity	30,000
(vi) Miscellaneous	4,62,000
Total:	18,60,000

The Government of Pakistan has decided to hold the next census in October 2008. The major financial liability falls on the Government of Pakistan. However, international agencies like UNFPA, UNDP and USAID will be approached for financial assistance for the next census. It will mainly be required for data entry equipment, consultancies in data entry/analysis, printing of forms, publicity, engendering census, etc. Effort would be made to involve the private sector for sharing the cost of the census and providing some financial assistance.

With the objective to increase its statistical capacity, Population Census Organization, during the next census would like to introduce several improvements in the shape of using OCR/OICR machines so that speedy and accurate data may be available for the data users. In the last census PCO used four OMR machines for data processing centralized at PCO Headquarters, Islamabad, but for the next census data processing will be decentralized. Six/seven OCR/OICR machines will be installed two each at Lahore, Karachi and the remaining three at PCO, Headquarters Islamabad. This is because storage of documents at one place and their editing/coding and data entry is a laborious, cumbersome and time consuming operation and can not be handled effectively at one station.

Since quality of printed forms play a crucial role in accurate transfer/capturing of data by OCR machine it is of utmost importance that these forms are printed through such printers who are experienced in this work. Such facilities are not available within Pakistan and the forms may have to be printed abroad.

Funds for study tours/visits of senior/middle level officers who are responsible to conduct census in 2008 will also be required/arranged to visit one/two countries which have conducted census in 2000 and used the OCR technology for data processing to share their experience. In order to build a long term technical know-how study visits will be arranged of countries like Bangladesh and Australia which have used OCR for data processing in their recent previous censuses.

Another area which requires assistance is analysis of census data which would be required after data processing and report writing. Unfortunately after the 1998 Census detailed/in-depth analysis could not be carried out due to lack of expertise in this area. For the next census, the consultancy services will be required for in-depth data analysis for which international agencies will be approached for funding these services.

F) CONDUCTING OF POPULATION & HOUSING CENSUS – 2008 IN PAKISTAN

As already mentioned the next Population and Housing Census would be held in October, 2008 after ten years of the last census. Accordingly the planning process has been initiated with the consultation of data users and preparation of maps for delimitation of census areas is underway. A detailed calendar of activities has been prepared to ensure completion of all activities in time (Annexure-I). Some important policy considerations for planning of the next Population & Housing Census are discussed as under: -

(i) Topics of Information

The choice of topics to be covered in a census mainly depends upon the users needs which are not only increasing, but also the level of such information/data required is for smaller administrative levels, while census

has its own limitations. Thus a balance has to be maintained in what census can produce with desired accuracy and what are the demands of most of the data users.

Another main consideration for determining census topics is to maintain comparability and continuity of the census information. Therefore, while modifications are required to be made in the existing topics, to keep up historical continuity and comparability at most, one or two questions could be added to collect important additional information.

Keeping in view the demands of data user for development planning and the past experience, draft questionnaires (both short and long) have been prepared for the next census and sent to data users to get their comments for improvement (Annexure-II). The final version of these questionnaires would be submitted to the Census Advisory Committee comprising representative of various users in the Government and Semi-Government Organizations for final recommendations.

(ii) Coverage of Area/Population

The whole territory of Pakistan, which includes the four provinces of Pakistan, Federally Administrated Tribal Areas (FATA) and Islamabad Federal Capital Territory vis-à-vis Azad State of Jammu & Kashmir and Northern Areas on behalf of Ministry of Kashmir and Northern Affairs and Government of AJ&K/NA will be covered.

Similarly all persons living in the above mentioned areas will be covered. Afghan refugees living in camps will be excluded but those mixed up with the local population will be counted. Foreign nationals living in Pakistan are covered except diplomatic personnel and their families.

The seasonal migrants living in certain areas of Balochistan and NWFP some times pose problems for their correct counting. However, they will be counted at the places where they will be found at the time of census.

(iii) Delimitation of Census Areas and Mapping

To ensure complete coverage of area/population and for effective field supervision, the country is traditionally delimited on a four-tier system of census districts, charges, circles and blocks. The boundaries of all these census areas are determined keeping in view the size of the population and topographical features of the areas. These boundaries coincide with existing administrative set up of Districts, Tehsils/Talukas, Qanungo Halqas, Patwar Circles and Mauzas/Dehs in rural areas and towns as well as Cantonments in case of urban areas.

Maps will be prepared for each census area (blocks/circle/charge) to ensure complete coverage and to avoid omission/duplication of population/area.

(iv) Census Methodology

Methodology refers to the methods employed for collecting data, different phases involved, use of sampling, etc. In 1981 and 1998 Censuses enumeration was carried out on de-jure as well as de-facto basis. This method was adopted to enhance the reliability of census data as it provided counter checks of total count. However, the data was tabulated on de-jure basis only to maintain the comparability of results over time. The same practice is proposed to be followed in 2008 Census. The issue of combined or separate Population and Housing Census was examined and discussed threadbare in the census organization and it was decided that combined population and housing census may be conducted along with sample survey covering detailed questions on socio-economic characteristics as was done in 1998 census.

(v) Use of Sampling in Census

The use of sampling for collection of additional information on sensitive and complex topics has become a regular feature of the census since 1972. Long questionnaire will be used in scientifically selected sample blocks/households comprising about 7-8 percent households. The sample design giving details of sampling/estimation procedure and sample size to be covered will be decided in view of geographical level on which estimates of sample information are required.

(vi) Hiring of Field Staff

To arrange and organize a large field force (about 150 thousands) for census operation in a country like Pakistan is a big challenge. The field force is hired from the employees of Provincial Governments for census period. In this regard the role of Provincial Governments is very important as their cooperation and support is vital for getting good quality staff.

Generally the primary/middle school teachers and other local government employees are engaged as enumerators. Efforts will be made to obtain good quality staff through greater persuasion of the provincial governments. The services of retired government officials, students, etc. could be obtained through local governments. Efforts will be made to recruit the female field staff in urban areas particularly for Sample Count Form to get better data relating to the females.

(vii) Training of Field Staff

Training is an important aspect in the execution of census plan particularly with a large field force. Efforts have to be made to prepare an effective training plan. In the last census a direct approach was adopted to train the field staff which proved to be effective and is expected to be continued this

time. The direct approach entails that the field staff is trained by a Census Trainer at all steps of field hierarchy. The Census Trainers will be taken from the regular staff of Population Census Organization, Federal Bureau of Statistics and Agricultural Census Organization to whom senior officers of PCO (called Master Trainers) will impart extensive training.

(viii) Publicity

An effective publicity plan will be launched to educate the people for their greater participation and to motivate the field staff to work with more dedication, zeal and vigor. This plan will be implemented in consultation with the Ministry of Information in projecting the cause of census through electronic and print media.

(ix) Editing/Coding of Filled-in Forms

In spite of best efforts in the field, it is not possible to get complete and accurate data for all items on all questionnaires. Therefore, before processing of data on computer, the filled-in schedules will be checked for their completeness and editing of questionnaires which are done manually. Codes to open-ended questions like occupation, industry, district of birth and previous residence will also be given in the office.

The initial scrutiny plus editing and coding of question like occupation, industry is time consuming process which needs to be shortened for earlier release of census data. Computer assisted coding programs may therefore be initiated which are in use in many countries of the world.

(x) Data Entry

To ensure accuracy and timeliness in data entry, OMR technology was used in the 1998 census, which also reduced the incidence of errors, that generally creep in during key entry. For the next census PCO intends to

consider use of OCR/OICR for data entry which has the ability to scan both alpha and numerical character to maintain better quality control.

In the 1998 census the filled-in/edited forms along with the Identification sheet of the block were scanned in batches under the programme developed in SCANTOOL software separately for short and long questionnaires. After data entry, data tapes were prepared separately for short forms at tehsil level and long forms at district level under unique file names. These data tapes labeled with area and file names were sent to Computer Centre, Federal Bureau of Statistics for computer editing and processing on mini computer, VAX-6310.

(xi) Data Processing/Tabulation

Once the data is converted into a computer readable format, the computer assumes an important role in editing and imputing of missing values, checking consistency, completeness and accuracy of data. The success in achieving these objectives, mainly depends on the software used for editing of data and quality of manpower deployed for this purpose.

The experience of the last census – 1998 has shown that processing of data arrangements were far from satisfactory for a variety of reasons. The data entry through OMR machines and transfer of data files to tapes was carried out by Population Census Organization while Federal Bureau of Statistics processed the data tapes, edited data files and tabulated the census data. Such shared system / responsibility between the two organizations at different sites created time lags and technical gaps. This also resulted in lack of coordination between computer experts and subject specialists.

In the next census it is planned to have all data processing activities including editing, coding, data entry, processing and tabulation to be carried out by our organization. For this purpose a combined approach of using OCR/OICR for data entry and micro-computer for processing and tabulation will be considered.

(xii) Tabulation Plan

Tabulation plan can be developed in two ways: first to develop the plan directly from users needs, and second, to develop it from the topics of information in the questionnaires. The objectives of development of tabulation plan are to meet users needs by ensuring timely release and adequacy of the data, and to provide meaningful statistics for analytical insight of data within time and resources available. Tabulation should permit consistency of data within and between the tables and comparability of data with other sources at national level.

(xiii) Publication/Dissemination of Census Data

Census results are widely disseminated to all kinds of data users. Census reports in the shape of census bulletins, district/ provincial/national census reports are published and sent to Federal ministries, provincial departments, universities, main libraries and NGOs for their use. The census data is also provided through electronic media in the shape of CDs, tape etc. if required by any government department, private agency, International organizations, students and researchers. Basic population and housing data on important variable at national and provincial level has also been placed on the Website { HYPERLINK "<http://www.census.gov.pk>" }. The regular reports are followed by supplementary reports based on analysis of socio-economic and demographic data.

(xiv) Quality Control Programme

Quality control program refers to the planned activities/procedures to be adopted to check errors/mistakes, which can creep in census data. It is essential that quality control program be developed as part of the overall plan of the census and implemented vigorously. Quality controls are required at all phases of the census but these are more important for activities like preparation of maps showing identifiable boundaries, preparation of questionnaires and control forms, selection and training of field staff, data collection, editing, data processing, etc.

During the next census, quality control measures will be developed at each stage of census-taking. Various control forms for the supply and retrieval of census schedules will be devised. Supervisor will be asked to fill certain number of forms independently of the enumerator to check quality of field work. Therefore in the coming census effective quality control measures and their vigorous implementation at all phases of census particularly in mapping, delimitation, field operation, data processing, etc. will be ensured.

G) STATISTICS ON GENDER

The global conferences on women have contributed to an increased awareness of the importance of statistics not only on women but, more broadly, on gender issues. For example, in developing census plans in a number of countries, efforts have been made to review and assess the adequacy of statistics for understanding the diversity of both women's and men's lives. Improvement of statistics and statistical methods related to gender should be an important priority at all stages of work on the census – in planning, data collection, analysis and dissemination – and in all topics.

In addition to the more general problems of the quality of census data, two other types of problems, which apply particularly to women and stem from sex-based stereotypes and sex biases, have been noted. For example, on the idea that women are simply

housewives and therefore not part of the economically active population. Similarly, the notion that only men can be heads of the household affects the way questions have been designed and asked in censuses. Such stereotypes also affect the way respondents reply to the question. If, for example, the gardening and poultry-raising done by many rural women are not perceived as work, such women may not be reported as economically active even though those activities may be the main source of family livelihood.

It should be emphasized that while all data collected at the individual level can be presented by sex, this is not always done. Cross-classifications by sex tend to be suppressed when cross-tabulations become complex with multiple-variable tables. In order to satisfy one basic condition for gender statistics, which is that all statistics on individuals should be presented by sex, sex should be considered the overriding variable in all tables, irrespective of the medium of storage or dissemination. This disaggregation by gender should be provided in all publications, databases and computer printouts of census tables on individuals.